

Fish and Wildlife Reference Service Newsletter

Number 130
Fall 2001



Please Circulate

Suite 110
5430 Grosvenor Lane
Bethesda, MD 20814-2142
800-582-3421
Maryland 301-492-6403
FAX (301) 564-4059
E-mail: fw9_fa_reference_service@fws.gov
<http://fa.r9.fws.gov/r9fwrs/>
Operated by THE KRA Corporation
Silver Spring, MD

Water Works Wonders Cooperative Marketing Kit Provides Effective Components for Successful Marketing Campaigns

The **Recreational Boating and Fishing Foundation (RBFF)** is offering industry and agency partners proven marketing and advertising materials as part of its mission to address declining participation trends in fishing and hunting.

Water Works Wonders is a national awareness campaign designed to increase angler and boater participation by positioning boating and fishing as unmatched leisure activities for true connection with family, friends, and the natural environment. **RBFF** launched a national **Water Works Wonders** advertising campaign in March of this year, which has generated more than 800 million consumer impressions representing both print and broadcast outlets across the USA. A second phase of national advertising will be initiated in March of 2002.

RBFF has developed a **Cooperative Marketing Kit** to help the fishing and boating industries and state wildlife agencies capitalize on the overwhelming success of this advertising campaign. The Kit includes all of the tools needed to effectively incorporate **Water Works Wonders** materials into a corporate or organizational marketing plan. Industry partners who have successfully implemented the **Cooperative Marketing Kit** materials include **Plano Tackle Systems** and **Russo Marine**.

The **Cooperative Marketing Kit** provides exclusive access to **Water Works Wonders** advertising and promotional materials including TV, Radio and print collateral, point-of-sale displays, and promotional items. Components of the *free* marketing kit are customizable and include:

◆ **Water Works Wonder logo** ◆ **Campaign Artwork** ◆ **Direct mail pieces** ◆ **CD ROM with all materials**

As a result of combining the **Water Works Wonders** message with their own targeted marketing approach, **Ohio Div of Wildlife** fishing license sales increased 6% in 2001; their first increase in 14 years. **RBFF** staff worked with the Ohio agency to set up an experimental design to see if a specific strategy-mailing of a reminder postcard, plus distribution of regional **Ohio Fishing Guides**, with a **Water Works Wonders** image on it, could influence the renewal rate of targeted individuals most likely to "lapse" in purchasing annual fishing license. In all three angler groupings (Lapsed, First-Time, and Active), the experimental groups that received targeted outreach materials had significantly higher renewal rates than the control groups that did not receive outreach materials. The outreach effort substantially reduced year-to-year turnover among license buyers with a high probability of non-renewal, and resulted in an additional 40,000 license buyers. These 40,000 anglers produced an additional \$560,000 in fishing license revenue for the **Ohio Div. Of Wildlife**.

The **RBFF** is working on a summary report of Phase 1 evaluation results. Availability of the report will be announced in **News Waves**, **RBFF's** stakeholder newsletter. To subscribe to **News Waves**, go to the **RBFF** website and click on "**Stay Informed**."

Cooperative Marketing materials are available to preview or download on the **RBFF** website <<http://www.rbff.org>> by clicking on "**Cooperative Marketing Materials**." For additional information on the **Water Works Wonders** cooperative marketing program, please contact Kristen Chambers, **RBFF** Program Manager, at 703-519-0013 ext. 102 or via email at kchambers@rbff.org.

NEW REPORTS

MAMMALS



1. **Fluctuating Asymmetry in Antlers of Alaskan Moose: Size Matters.** Bowyer, R.T.; Stewart, K.M.; Kie, J.G.; Gasaway, W.C. J. of Mamm. 2001. pp. 814-824 (11 pp.). Vol. 82, No. 3. /1 mf/. MIN 500120236

2. **Sexual Segregation in Roosevelt Elk: Cropping Rates and Aggression in Mixed-Sex Groups.** Weckerly, F.W.; Ricca, M.A.; Meyer, K.P. J. of Mamm. 2001. pp. 825-835 (11 pp.). Vol. 82, No. 3. /1 mf/. MIN 040120237

3. **Effect of Adult Sex Ratio on Mule Deer and Elk Productivity in Colorado.** White, G.C.; Freddy, D.J.; Gill, R.B.; Ellenberger, J.H. J. of Wildl. Manage. 2001. pp. 543-551 (9 pp.). Vol. 65, No. 3. /1 mf/. MIN 050120238

4. **Winter Hunting Patterns of Wolves in and near Glacier National Park, Montana.** Kunkel, K.; Pletscher, D.H. J. of Wildl. Manage. 2001. pp. 520-530 (11 pp.). Vol. 65, No. 3. /1 mf/. MIN 250120239

5. **A Landscape Analysis of Cougar Distribution and Abundance in Montana, USA.** Riley, S.J.; Malecki, R.A. Environmental Management. 2001. pp. 317-323 (7 pp.). Vol. 28, No. 3. /1 mf/. MIN 250120243

6. **Effects of Selective-Harvest Strategies on White-tailed Deer Antler Size.** Strickland, B.K., et al. Wildl. Soc. Bull. Contrib. WF154, MS State Univ. Forest and Wildl. Res. Center. 2001. pp. 509-520 (12 pp.). Vol. 29, No. 2. /1 mf/. MIN 230120240

7. **Habitat and Structural Factors Influencing Beaver Interference with Highway Culverts.** Jensen, P.G.; Curtis, P.D.; Lehnert, M.E.; Hamelin, D.L. Wildl. Soc. Bull. 2001. pp. 654-664 (11 pp.). Vol. 29, No. 2. /1 mf/. MIN 310120241

8. **Implant- versus Collar-transmitter Use on Black Bears.** Koehler, G.M.; Hall, P.B.; Norton, M.H.; Pierce, D.J. Wildl. Soc. Bull. 2001. pp. 600-605 (6 pp.). Vol. 29, No. 2. /1 mf/. MIN 460120242

9. **Fecal Glucocorticoid Assays and the Physiological Stress Response in Elk.** Millsaugh, J.J., et al. Wildl. Soc. Bull. 2001. pp. 899-907 (9 pp.). Vol. 29, No. 3. /1 mf/. MIN 400120244

10. **The Impact of Winter Feeding on the Population Dynamics of White-tailed Deer in Northern New Hampshire.** Pekins, P.J.; Tarr, M.D. NH F&G Dept. Final Report. 1997. 62 pp. /1 mf/. MIN 280180082

11. **Mammals Research Program. Lynx Conservation: Assessing Abundance of Snowshoe Hares.** Reed, D.F. CO Div. of Wildl. Final Report. 2000. 52 pp. /1 mf/. MIN 050180079

12. **Declining Mule Deer Populations in Colorado: Reasons and Responses (A Report to the Colorado Legislature, November 1999).** Gill, R.B. CO Div. of Wildl. Special Report No. 77. 2001. 36 pp. /1 mf/. MIN 050180081

13. **Analysis and Critique of the 1998 Snowshoe Hare Pellet Survey.** Bartmann, R.M.; Byrne, G. CO Div. of Wildl. Div. Report No. 20. 2001. 13 pp. /1 mf/. MIN 050180080

14. **Wildlife Research: Systems Modeling for White-tailed Deer Management.** MI DNR. Final Report. 2000. 146 pp. /2 mf/. MIN 210130023

BIRDS



15. **Conservation of Disturbance-Dependent Birds in Eastern North America.** Hunter, W.C., et al. Wildl. Soc. Bull. 2001. pp. 440-455 (16 pp.). Vol. 29, No. 2. /1 mf/. MIN 800120248

16. **Population Research Priorities for Black Terns Developed from Modeling Analyses.** Servello, F.A. Waterbirds. Pub. No. 2445, ME Agric. and Forest Exper. Sta. 2000. pp. 440-448 (9 pp.). Vol. 23, No. 3. /1 mf/. MIN 180120249

17. **Artificial Cavities Enhance Breeding Bird Densities in Managed Cottonwood Forests.** Twedt, D.J.; Henne-Kerr, J.L. Wildl. Soc. Bull. 2001. pp. 689-687 (8 pp.). Vol. 29, No. 2. /1 mf/. MIN 230120250

18. **Nest Survival of Forest Birds in the Mississippi Alluvial Valley.** Twedt, D.J.; Wilson, R.R.; Henne-Kerr, J.L.; Hamilton, R.B. J. of Wildl. Manage. 2001. pp. 450-460 (11 pp.). Vol. 65, No. 3. /1 mf/. MIN 800120251

19. **An Eastern Wild Turkey Population Dynamics Model for Virginia and West Virginia.** Alpizar-Jara, R., et al. J. of Wildl. Manage. 2001. pp. 415-424 (10 pp.). Vol. 65, No. 3. /1 mf/. MIN 800120252

20. **Comparison of RadioTransmitter Attachment Techniques Using Captive Mourning Doves.** Schulz, J.H.; Bermudez, A.J.; Tomlinson, J.L.; Firman, J.D.; He, Z. Wildl. Soc. Bull. 2001. pp. 771-782 (12 pp.). Vol. 29, No. 3. /1 mf/. MIN 240120253

21. **Population and Habitat Ecology of Black Terns in Maine.** Servello, F.A.; Gilbert, A.T. ME Dept. of Inland Fish. and Wildl. Tech. Report. 2001. 34 pp. /1 mf/. MIN 180180087

22. **The Winter Ecology of Harlequin Ducks in Coastal Maine.** Mittelhauser, G.H. NPS. Tech. Report NPS/BSO-RNR/NRTR/00-16. 2000. 150 pp. /2 mf/. MIN 180130024

23. **Body Condition of Waterfowl Harvested on the Upper Gulf Coast of Texas, 1986-2000.** Haukos, D.A.; Neaville, J.E.; Myers, J.E. USFWS. 2001. 64 pp. /1 mf/. MIN 420180088

24. **The Foraging and Habitat Ecology of Black Terns in Maine.** Gilbert, A.T. M.S. Thesis. Univ. of ME. 2001. 140 pp. /2 mf/. MIN 180130025

25. **Wildlife Research: Impacts of Hunter Harvest on Ruffed Grouse Populations.** Winterstein, S.R. MI DNR. Final Report. 2000. 194 pp. /2 mf/. MIN 210130026

FISH

26. **Recreational Darkhouse Spearing for Northern Pike in Minnesota: Historical Changes in Effort and Harvest and Comparisons with Angling.** Pierce, R.B.; Cook, M.F. N. Am. J. of Fish. Manage. 2000. pp. 239-244 (6 pp.). Vol. 20. /1 mf/. MIN 220110185

27. **Effects of Length Limits on Muskellunge in Bone Lake, Wisconsin.** Cornelius, R.R.; Margenau, T.L. N. Am. J. of Fish. Manage. 1999. pp. 300-308 (9 pp.). Vol. 19. /1 mf/. MIN 480110186

28. **Consequences of Human Lakeshore Development on Emergent and Floating-Leaf Vegetation Abundance.** Radomski, P.; Goeman, T.J. N. Am. J. of Fish. Manage. 2001. pp. 46-61 (16 pp.). Vol. 21. /1 mf/. MIN 220110187

29. **Muskellunge Stocking Strategies in Wisconsin: The First Century and Beyond.** Margenau, T.L. N. Am. J. of Fish. Manage. 1999. pp. 223-229 (7 pp.). Vol. 19. /1 mf/. MIN 480110188

30. **A Simple Test for Nonmixing in Multiyear Tagging Studies: Application to Striped Bass Tagged in the Rappahannock River, Virginia.** Latour, R.J.; Hoenig, J.M.; Olney, J.E.; Pollock, K.H. Trans. Amer. Fish. Soc. VA Inst. of Marine Sci. Contrib. No. 2367. 2001. pp. 848-856 (9 pp.). Vol. 130. /1 mf/. MIN 450110189

31. **Processes Contributing to Variability in Regional Patterns of Juvenile River Herring Abundance across Small Coastal Systems.** Kosa, J.T.; Mather, M.E. Trans. Amer. Fish. Soc. 2001. pp. 600-619 (20 pp.). Vol. 130. /1 mf/. MIN 200110190

32. **Reproductive Success of Sympatric Northern Pike and Muskellunge in an Upper St. Lawrence River Bay.** Farrell, J.M. Trans. Amer. Fish. Soc. 2001. pp. 796-808 (13 pp.). Vol. 130. /1 mf/. MIN 310110191

33. **Comparison of Two Methods of Habitat Rehabilitation for Brown Trout in a Southeast Minnesota Stream.** Thorn, W.C.; Anderson, C.S. MN DNR. Completion Report. Invest. Report No. 488. 2001. 17 pp. /1 mf/. MIN 220140145

34. **Batten Kill Special Regulation Evaluation and Management: Fish Population Sampling and Data Analysis and Reporting. Evaluation of Wild Trout Populations in the Batten Kill and Application of a Catch and Release Regulation.** Cox, K.M. VT Dept. Fish and Wildl. Final Job Perform. Report. 2000. 44 pp. /1 mf/. MIN 440140146

35. **Temporal Change in Fish Communities and Modification of the Index of Biotic Integrity for the James River of the Dakotas.** Shearer, J.S. M.S. Thesis. SD State Univ. 2001. 128 pp. /2 mf/. MIN 400150014

36. **Population Characteristics and Sampling Methods of Catfish for the James and Big Sioux Rivers.** Arterburn, J.E. M.S. Thesis. SD State Univ. 2001. 88 pp. /1 mf/. MIN 400150015

37. **Effects of Sampling Time, Intraspecific Density, and Environmental Variables on Electrofishing Catch per Effort of Largemouth Bass in Minnesota Lakes.** McInerney, M.C.; Cross, T.K. N. Am. J. of Fish. Manage. 2000. 328-336 (9 pp.). Vol. 20. /1 mf/. MIN 220110192

38. **A Comprehensive Evaluation of an Eight Year Program of Sea Lamprey Control in Lake Champlain.** NYS DEC; VT Dept. of Fish and Wildl., and USFWS. 1999. 630 pp. /7 mf/. MIN 800140147

REPTILES

39. **Field Trials of Line Transect Methods Applied to Estimation of Desert Tortoise Abundance.** Anderson, D.R., et al. J. of Wildl. Manage. 2001. pp. 583-597 (15 pp.). Vol. 65, No. 3. /1 mf/. MIN 270120234

40. **Population Structure and Reproductive Ecology of Blanding's Turtle (*Emydoidea blandingii*) in Maine, near the Northeastern Edge of Its Range.** Joyal, L.A.; McCollough, M.; Hunter, M.L. Chelonia Conserv. and Biol. Internat. J. of Turtle and Tortoise Research. Pub. No. 2452, ME Agric. and Forest Exper. Sta. 2000. pp. 580-588 (10 pp.). Vol. 3, No. 4. /1 mf/. MIN 180120233

OTHER

41. **Effects of Conservation Practice, Mowing, and Temporal Changes on Vegetation Structure on CRP Fields in Northern Missouri.** McCoy, T.D., et al. Wildl. Soc. Bull. MO Agric. Exper. Sta. J. Series 13,132. 2001. pp. 979-987 (9 pp.). Vol. 29, No. 3. /1 mf/. MIN 240120235

(continued on page 6)

BULLETIN BOARD

The **International Union of Forest Research Organizations (IUFRO)** is a non-profit, non-governmental international network of forest scientists. **IUFRO Division 6.03.00**, Information Services and Knowledge Organizations, focuses on topics of interest to forest and natural resources information specialists, to facilitate networking and communication. **For more information on IUFRO**, view the website at <http://gis.umn.edu/iufro>, or contact **Carol Green** at ccgreen@washingtton.edu. Some recent activities of 6.03 are also outlined at <http://www.lib.washington.edu/Forest/iufro/IUFRO6.03.html>.

.....
Human Dimensions of Wildlife Management in North America, edited by D.J. Decker, T.L. Brown, and W.F. Siemer. The text of this book is organized to appeal to three audiences: wildlife management courses that desire a human dimensions text to supplement traditional biological material, an upper division stand-alone human dimensions course, and a text for practicing professionals. It is divided into four major parts: (1) social and community values; (2) human dimensions and the essential processes of wildlife management; (3) applying human dimensions insight to issues in wildlife management; and (4) practical human dimensions considerations. **For ordering information, contact: The Wildlife Society, 5410 Grosvenor Lane, Bethesda, MD 20814-2197; Phone: (301) 897-9770 or FAX: (301) 530-2471.**

.....
The Sport Fish and Wildlife Restoration Partnership Power Pack CD is designed to communicate the benefits of the **Sport Fish and Wildlife Restoration (SFWR) programs**. This CD contains information on **Federal Aid (FA)** grant requirements, outreach, products and strategies that can be used to reach out to industries, educational tools and power point presentations, and a wealth of relevant links. The CD will help agencies, their staff, and all stakeholders understand the critical role SFWR programs play in providing opportunities for outdoor recreation and restoring fish and wildlife for future generations. The CD has been sent to State chiefs of wildlife, fisheries and I&E, as well as to hunter and aquatic educators, and FA coordinators. **A limited supply of this CD is available from The International Association of Fish and Wildlife Agencies, 444 North Capitol St., NW, Suite 544, Washington, DC 20001; (202) 624-7890**

(continued from page 3)

42. Extended Abstracts from BioGeo99: Applications of Geospatial Technology to Biological Sciences. Handley, L.R.; D'Erchia, F.J.; Charron, T.M. (Eds.). USGS. Inform. and Tech. Report USGS/BRD/ITR-2000-0008. 2000. 54 pp. /1 mf/. MIN 800180089

HUMAN DIMENSIONS



43. Quality Deer Management: Ethical and Social Issues. Green, D.; Stowe, J.P. Human Dimensions of Wildl. 2000. pp. 62-71 (10 pp.). Vol. 5. /1 mf/. MIN 800120245

44. Gender and Ethical Judgments about Suburban Deer Management. Lauber, T.B.; Anthony, M.L.; Knuth, B.A. Society and Natural Resources. 2001. pp. 571-583 (13 pp.). Vol. 14. /1 mf/. MIN 310120246

45. Effect of Hunting and Trapping on Wildlife Damage. Conover, M.R. Wildl. Soc. Bull. 2001. pp. 521-532 (12 pp.). Vol. 29, No. 2. /1 mf/. MIN 800120247

46. Attitudes of Minnesota Residents about Fisheries Issues. Jacobson, P.C.; Close, T.L.; Anderson, C.S.; Kelly, T.J. MN DNR. Invest. Report No. 478. Completion Report. 1999. 20 pp. /1 mf/. MIN 220180083

47. Nonmarket Economic Benefits Provided by Increased Recreational Fishing from Conservation Reserve Program (CRP) Related Water Quality Improvement. Douglas, A.J.; Johnson, R.L. USGS. 2001. 38 pp. /1 mf/. MIN 800140148

48. Hunter Participation in Quality Hunting Ecology in Pennsylvania: Baseline Research. Enck, J.W.; Brown, T.L. Human Dimen. Res. Unit, Cornell Univ. HDRU Series No. 01-1. 2001. 52 pp. /1 mf/. MIN 370180084

49. Wildlife Research. Foundations of Ecosystem Management: Integrating Sociological and Ecological Components. Winterstein, S.R. MI DNR. Final Report. 2000. 420 pp. /5 mf/. MIN 210180085

50. Wildlife Research: Evaluation of Two Outreach Programs. Carter, K.S. MI DNR. Final Report. 2000. 122 pp. /2 mf/. MIN 210180086

FISH AND WILDLIFE REFERENCE SERVICE STAFF

Paul Wilson.....	Project Manager
Geoffrey Yeadon.....	Index. Spec./Search Analyst
Jason Fish.....	Index. Spec./Search Analyst
Haroutioun Assarian.....	Production Clerk

The Fish and Wildlife Reference Service Newsletter is issued by The KRA Corporation. KRA operates this Service under a contract with the U.S. Fish and Wildlife Service. Contractual information can be obtained by calling Chris McKay, Project Officer at (703) 358-2156. This information retrieval system selectively covers the published and unpublished research reports resulting from the Federal Aid in Fish and Wildlife Restoration Program (Pittman-Robertson and Dingell-Johnson Acts), the Anadromous Sport Fish Conservation Program, the Endangered Species Grants Program and the Cooperative Fish and Wildlife Research Units.

The publication herein of material selected from sources outside the Fish and Wildlife Service is not to be construed as an endorsement thereof, and does not necessarily reflect the views of the USFWS.

Fish and Wildlife Reference Service

5430 Grosvenor Lane, Suite 110
Bethesda, MD 20814-2142

PRSRT STD
U.S. Postage
PAID
Suburban MD
GMF
Permit No.
4041

Reader Service Slip

FWRS FAX (301) 564-4059

Please use this form to order from Newsletter 130

Circle the newsletter article number(s) of your choice from the New Reports Listings.

DEFINITIONS

COOPERATORS: Employees of U.S. State or Federal agencies and Native American Governments with an interest in natural resources.

CLIENTS (MUST PREPAY): All other persons who have a need for or interest in Fish and Wildlife Reference Service Materials.

Cooperator invoices are shipped with documents.

PLEASE PAY WITHIN 90 DAYS

*Cooperators may request **ONE REPORT** (i.e., single-document order) **OR 20 FICHE** without charge. Cooperators requesting multiple documents will receive **200 PAGES** of the total pagination without charge and will be charged for every page over 200 pages at the client rate, plus \$2.50 postage.

SERVICE

Photocopy of reports

Microfiche of reports

Literature search

Postage

COOPERATORS

200 pages or
one report*

20 fiche*

No Charge

No Charge*

CLIENTS

\$.10/page

\$.50/fiche

\$30 base

\$2.50 (All Canadian and foreign requests will be charged first class postage)

MAILING ADDRESS INFORMATION

☐ PLEASE CORRECT NAME ON THE MAILING LIST

☐ PLEASE CORRECT ADDRESS ON THE MAILING LIST

☐ PLEASE ADD MY NAME TO THE MAILING LIST, BUT DO NOT DELETE NAME ON LABEL

☐ PLEASE REPLACE NAME ON LABEL WITH MY NAME

☐ PLEASE REMOVE MY NAME FROM THE MAILING LIST

NAME _____

☐ Client (must prepay) ☐ Cooperator (check one)

TITLE _____ PHONE # () _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Funding Agency/Company Name
(if not given in address) _____

FORMAT: Please send the requests circled below in ☐ Microfiche ☐ Photocopy

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

41 42 43 44 45 46 47 48 49 50

CAUTION: UNSIGNED REQUESTS AND REQUESTS WITHOUT FORMAT SELECTED WILL NOT BE FILLED.

Ordered by: _____

I understand there may be charges.

☐ Payment enclosed (U.S. Dollars Only) include \$2.50 postage. Please do not send cash.

☐ Credit Card: (CIRCLE ONE) VISA MASTER CARD DISCOVER AMERICAN EXPRESS

Card #: _____ Expire Date: _____

Photocopies of this slip are acceptable. Please submit entire page, cut slips will be returned.

**FALL
NL 130**